

User's Guide
For
Real-Time FSA Version 9.0

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Revision History

Revision	Revision Date	Author's Initials	Description of Change
Version 1.0 For FSA 2.0	02/01/2001	DLA	The initial release will include Performance, Flight Status, Time Out Delay, Compliance Report, Cancelled Flights That Flew, and Pop-Up reports. Additionally, Version 2.0 will include drill down and query capabilities that will allow the user to view a flight history for any flight.
Version 2.0 For FSA 2.0	1/29/2002	DLA	The training guide has been updated to reflect changes in FSM and ETMS.
Version 2.2/2.3	3/28/02	MV	The training guide has been updated to reflect the changes in the 2.2/2.3 release of Real-time FSA.
Version 7.6	05/15/03	DLA	The training guide has been updated to reflect the changes in the 7.6 release of Real-time FSA
Version 7.6	6/09/03	DLA	Replaced Internet Explorer Screen shots with Mozilla screen shots. Combined the airline and FAA versions into a single manual.
Version 7.7	7/29/2003	DLA	Updated to show the distance based GDP parameters that will be displayed in the Events reports as of the RT-FSA 7.7 release and the release of the FSM Java client.
Version 7.7	9/17/2003	DLA	Added a description of the CTD<PGTD report.
Version 7.8	01/16/2003	MS	Added FSM Ground stop compliance monitoring feature, added new field in Duplicate Flights report, and flight record coloring changes in Flight History (for ECR, SCS, and BRG).
Version 8.0	03/- 29/2005	AW	Added GAAP specific information (including Unassigned slots report).
Version 8.0	04/2005	AW	Integrated comments from Namita A.
Version 8.2	04/2006	AW	Added AFP specific information.
Version 9.0	11/2010	MB	The training guide has been updated to be up to date with the R5 release of Real-time FSA
Version 9.0	01/03/2010	MA	Version number update.

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This document is a training manual for new users of Real-Time FSA. It provides instructions for accessing the FSA reports and explains how to interpret the information displayed in these reports.

Introduction

Real-time FSA (RT-FSA) is a web based application that allows you to monitor traffic management initiatives (TMIs) as they are executing.

FSA generates twelve different types of reports: Performance, Flight Status, Adaptive Compression, Cancels That Flew, Compliance, CTD Before PGTD, Pop-Ups, Pop-Ups Delay, Time Out Delay, Duplicate Flights, Unassigned Slots, and Events. These reports are updated every five minutes with the most current Airport Demand List (ADL) information.

The information provided in these reports helps you identify problems as they occur, so that you can correct problems that impact TMI performance.

The new format for the FSA home page displays whether individual events within a TMI are active or inactive. RT-FSA updates events to inactive when one of the following occurs:

1. Purge — all active events become inactive.
2. The event is no longer controlling any flights.
3. Another (actual) event is issued (Airspace Flow Program (AFP), GDP, COMP, and Blanket only). A GS becomes inactive only if it is purged or is no longer controlling flights.

It is possible to have both a GDP event such as a revision and a GS executed within the GDP active at the same time, if the GS did not encompass all flights in the GDP.

If a GS is active but a GDP has not been issued, only two reports are available: the Compliance report, and the Events report. If a GDP is active at the same time as the GS, all reports are available.

Note: A GS cannot be issued for an airspace element.

Accessing the Reports

The reports are viewed using an internet browser. To access the reports:

1. Start your browser.
2. Go to the ATCSCC homepage
3. Click the *Operational Information System (OIS)* link.
4. Click the *FSA* link on the bottom of the left hand side menu on the OIS page.





Figure 1: RT-FSA Home Page

The FSA home page shown above has a link for each airport or airspace element that has a TMI. Each initiative within an event is sorted by its report time. When you click on a link for an airport or airspace element, RT-FSA displays the Performance report for the selected airport or airspace element. You can access all other reports from the Performance report.

Table 1: Current Initiative Statuses

Symbol	Status	Description
	Adaptive Compression ON	The last reported AC "status update" appears as "[HHMM] Adaptive Compression (# ADPT / # ABRG)". For example; 1615 Adaptive Compression (3 ADPT / 5 ABRG)" where HHMM is the last ADL time received for the AC. The ADPT number is the number of flights that received AC. If no flights were bridged but there was a compression '0' would appear for ABRG. Applicable only to AFP and GDP. If the symbol appears but the phrase "No Adaptive Compression Reported" appears, then AC is ON but the event has not occurred yet.
	Adaptive Compression OFF	AC is turned OFF for the element. Applicable only to AFP and GDP.
	ALL OFF	AC and substitution processing for the element

		have been turned OFF. Applicable only to AFP and GDP.
	Event Controlling Flights	TMI is controlling flights in the element.
	Event NOT Controlling Flights	TMI is no longer controlling flights in the element.

Links are also available for cancelled TMIs from the current day. The reports for the cancelled TMIs are accessed in the same manner.

Performance Report

The Performance Report shows whether the program is delivering the requested Program Rate (see Figure 2).

For each program hour, the report displays the program rate, number of slots, number of cancellations, extra demand, displaced demand, and the total demand expected. These counts are the key to understanding why the program is over or under delivering for a particular hour. An explanation of each count appears below.

Program Rate: The rate is populated with data from the table PARAMS_PROGRAM_RATES. The rate shown will be pro-rated for partial hours at the beginning of the program. The rate will also be prorated if it changed in the middle of an hour due to a revision.

Number of Assigned Slots: The number of slots FSM created for that hour. Sometimes the number of slots does not equal the requested program rate due to a number of factors. See Appendix A for further explanation.

Flights Controlled By Another Initiative: The number of flights passing through the current FCA that another TMI controls. These flights have a “CTL_ELEM” value that is different than the current FCA for which the AFP was created. This number is positive.

Cancellations: The number of cancelled flights in the hour. This number equals the number of squares on the FSM timeline for the hour. The number is always a negative number.

Note: The RT-FSA System displays all cancellations of flights with slots for each hour of the TMI on the Cancellations Row.

Pop-Up Demand – Unassigned: The total number of pop-up flights that are assigned to unassigned slots for a UDP or a GAAP program. Clicking on the number of flights under “Pop-Up Demand – Unassigned” for each hour, will display a new report that displays the flight call signs, their delay, average delay, and total delay for all the pop-ups that were assigned to unassigned slots under an UDP or a GAAP program.

Pop-Up Demand – DAS: The total number of pop-up flights that are assigned to DAS type slots for a UDP or a GAAP program. Clicking on the number of flights under “Pop-Up Demand – DAS” for each hour, will display a new report that displays the flight call signs, their delay, average delay, and total delay for all the pop-ups that were assigned to DAS type slots under an UDP or a GAAP program.

Extra Demand: The number of extra flights showing up in the hour that do not have an FSM assigned slot in the hour. This number is the sum of those flights with a Z slot in the hour being reported on and those flights whose ETA has shifted into the hour being reported on. A Z slot is a

virtual slot assigned by FSM to pop-up flights for sorting purposes. The extra demand is typically due to pop-ups, flights that should have shown up in an earlier hour (they have a slot time prior to the hour), or flights that should be showing up in a later hour (they have a slot time in a later hour). Occasionally extra demand may be due to "Non-program" flights. These are flights that were not originally given a slot by FSM because they were not expected to arrive during the program hours. For instance, flights may delay into the first hour of the program after the initial program is run.

Arriving Prior to Control Hour: The number of flights which should have shown up in the hour (they have slot times in the hour), but are expected to arrive in an earlier hour due to an early departure or some other reason.

Arriving After Control Hour: The number of flights which should have shown up in the hour (they have slot times in the hour) but are expected to arrive in a later hour due to a late departure or some other reason.

Total Current Demand: The total number of flights expected to arrive in the hour at the ADL time shown at the top of the report. The Total Current Demand for an hour equals the number of slots allocated minus the "No-shows" (i.e. the Cancellations and flights Arriving Prior to and After Their Control Hour) plus the extra flights arriving in the hour that do not have slots in the hour (i.e. the Extra Demand).

Number of Unassigned Slots: The total number of Unassigned Slots for a GDP or an AFP event with a GAAP or UDP delay. If a 0 appears in the place of the number, then the GDP or AFP has a DAS delay not a GAAP delay. Clicking on the number causes a list of Unassigned Slots for the appropriate hour to appear and displays it underneath the Performance report. When no Unassigned Slots exist for a particular hour, "NO FLIGHTS" appears under the Performance Report.

Total Potential Demand: The sum of the Total Current Demand row and the Number of Unassigned Slots row for each hour. Clicking on the number generates a combination of the unassigned slot list and the total current demand list for the appropriate hour and displays it underneath the Performance report.

Drop Outs: The number of flights that have rerouted out of an AFP. This number is positive. Clicking on the number generates a flight list of drop out flights for the appropriate hour and displays it underneath the Performance report.

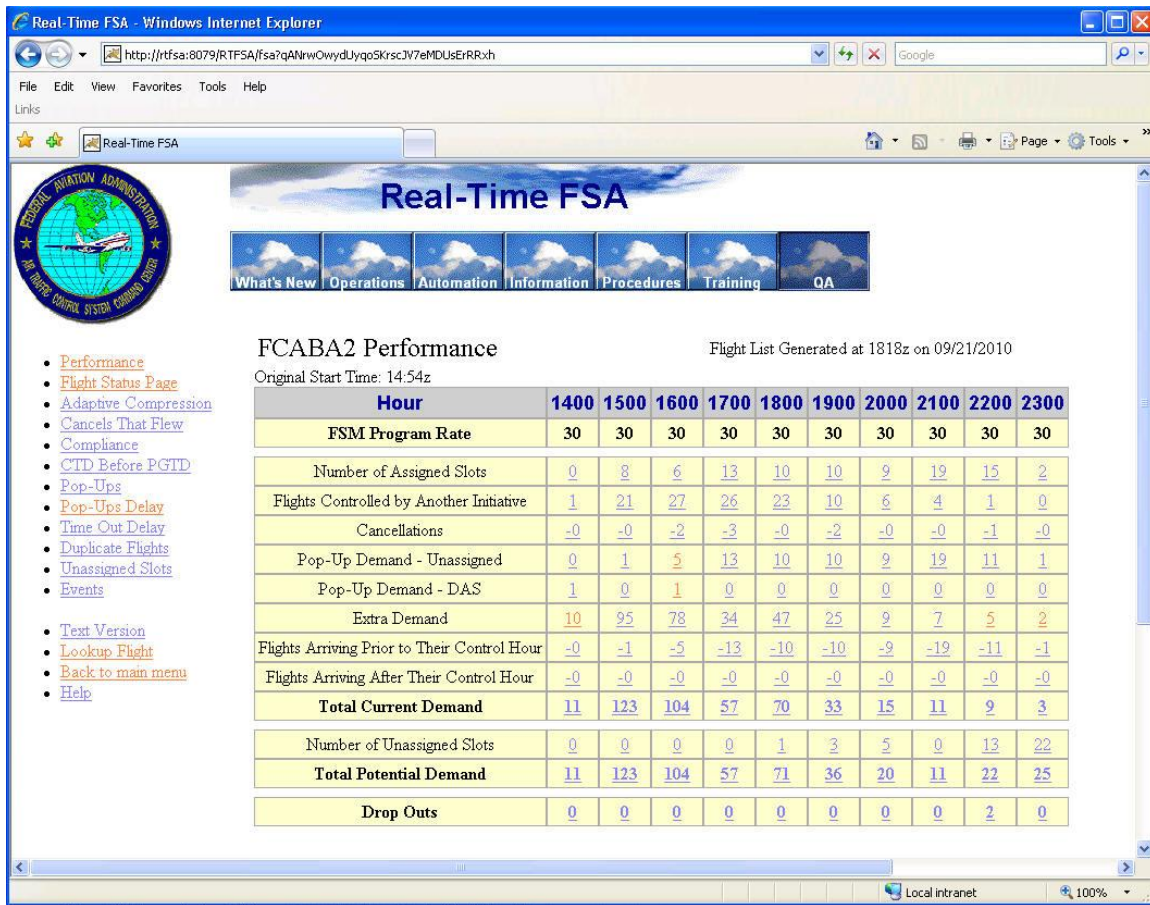


Figure 2: Performance Report

Ground Stop Only

Since there is no FSM Program rate associated with a GS, it is not possible to generate the performance report. The compliance report shows all non-compliant GS flights for all active ground stops at the airport being viewed.

Drill Down Capabilities

Click on the associated link to view the flights comprising each count. Figure 3 below shows the result of clicking on the **Extra Demand Link** for the 2300 hour. The resulting flight list shows all of the aircraft that are expected to arrive in the 2300 hour that do not have FSM assigned slots in this hour.

Note: For airline users, general aviation and military flights do not appear, so the number of flights appearing in the report may be less than the count shown in the performance table.

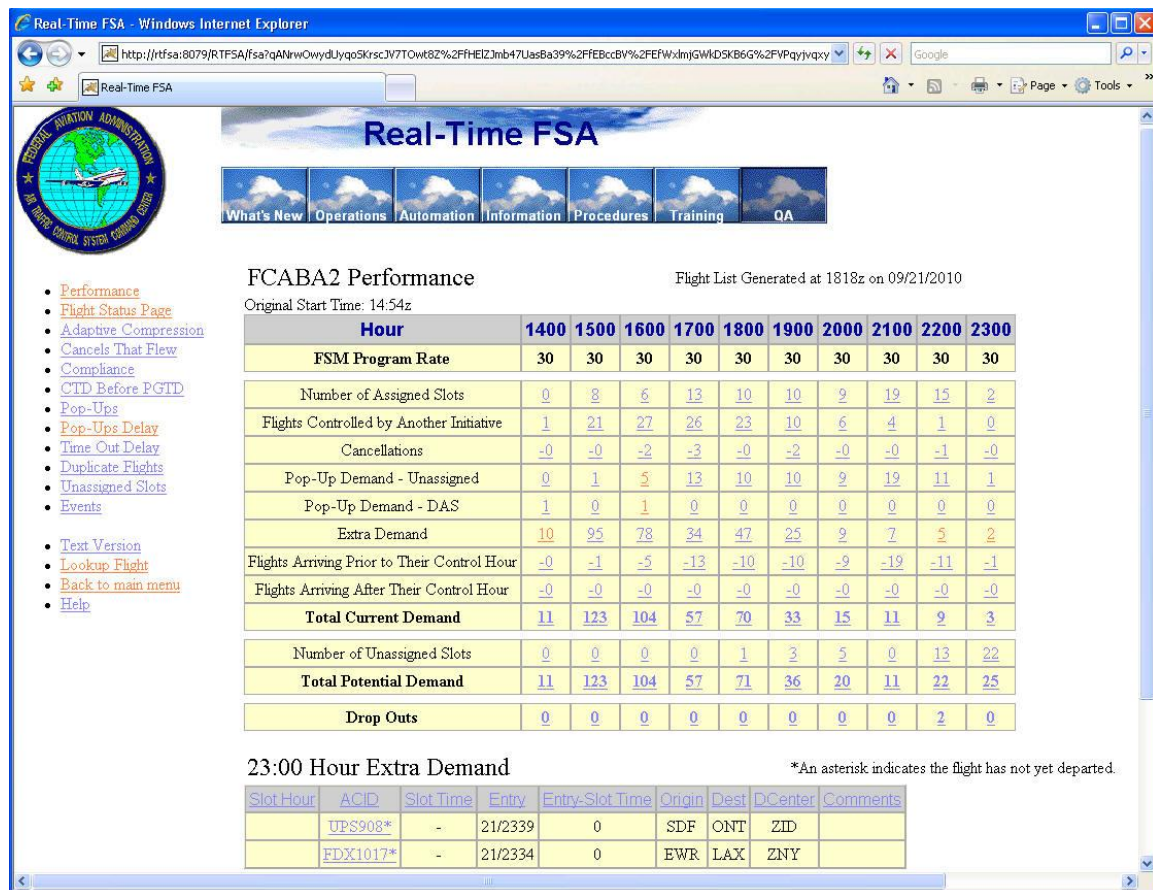


Figure 3: Extra Demand

The “Comments” column in the flight list provides an indication of why a flight either does not have a slot or is not arriving at its assigned slot time. See Table 1 on pages 10-11 for a complete list of the comments that may appear in the “Comments” field.

Accessing a Flight’s History

Clicking on a call sign in the flight list displays all the flight data received through the ADLs for the flight selected.

Sorting

By default RT-FSA sorts the flight lists displayed on the performance report by Slot Time. Click on any of the underlined column titles to re-sort the flight list by the column selected.

Note: Sorting by the Entry column title causes the Slot Time column title to rename to Entry Hour. Sorting by the ETA column title causes the Slot Time column title to rename to Arrival Hour.

Usage

Determining why there is over or under delivery

The counts in combination with the comments in the drill down flight lists show why an hour is heavy or light. For example, if 3 additional flights are expected to arrive in the 2100 hour that do not have slots in this hour. The comments for these flights might reveal that the extra demand is

due to 2 flights that were supposed to arrive in the 2000 hour that are no longer expected to arrive in this hour due to errors in ETE estimation and, for 1 flight, a time out delay into the 2100 hour. If no flights have been cancelled and -1 flight is arriving prior to its controlled time, then the net balance (i.e. the total demand) is 57 flights – 2 flights more than the requested program rate of 55.

Determining whether a compression or revision is needed

You can use the information provided in the Performance Report to determine whether an event needs a compression or revision. To determine if you need to take any action and what type of action is most appropriate, compare the requested Program Rate to the Num. Of Slots and the Total Demand for future hours, as described below.

No Action Required

If the Total Demand = Program Rate, Cancellations=0, and there has been very little shift in demand, no action should be necessary. The demand graph in FSM appears "smooth" and the FSM timeline has very few triangles and no squares.

Note: The number of “Flights Arriving Before Their Control Hour” and the number of “Flights Arriving After Their Control Hour” show the degree to which demand has shifted.

Compression Only

If the Total Demand \leq Program Rate, but the Number of Slots=Program Rate, and there is no pop-up traffic then a compression should suffice. RT-FSA lists pop-ups that do not have a slot at the top of each hour in the Extra Demand flight lists. To view the Extra Demand flight list for an hour, click on the *Extra Demand* count for that hour. The Pop-Up report also shows the amount of pop-up traffic expected in each hour.

RBS++

If Total Demand \leq Program Rate, and Number of Slots \leq Program Rate, or there is a significant amount of pop-up traffic, then the event needs a revision.

GDP Modeling

The Performance report shows the impact of GDP actions/modeling choices. For example, after a GS is issued, the number of slots assigned per hour no longer equals the Program Rate. Issuing a GS redistributes the arrival slots based on the GS release time - not the Program Rate. Issuing EDCT updates and adjusting GDPs by “Blanket” amounts of time also moves arrival slots and may cause the number of slots to differ from the Program Rate.

The presence of large negative ETE fluctuations (see the comments provided in the flight lists) may indicate a lack of slot availability when a large number of flights are exempted in RBS++. See the Program Events report to determine how many flights were exempted for a particular event. This report displays the total number of flights included in each program event as well as the number of flights affected. The difference between these two numbers equals the number of exempt flights for that event.

AFP Modeling

The Performance report shows the impact of AFP actions/modeling choices. See the Program Events report to determine how many flights were exempted for a particular event. This report displays the total number of flights included in each program event as well as the number of

flights affected. The difference between these two numbers equals the number of exempt flights for that event.

Detecting Airborne Holding

Large positive ETE fluctuations for flights that have already departed may be an indication of airborne holding (see the comments provided in the flight lists).

Flight Status Report

For GDP, AFP and GS programs: The Flight Status report shows the current status of all program flights arriving within the program and any flight arriving outside of the program with a GDP control, AFP control, or GS control. To locate an individual flight, click on the **Lookup Flight** link to search for the flight by its ACID, ORIG, and DEST of a present or past day. By default RT-FSA sorts the Flight Status report by ETA in descending order for GDPs and by ENTRY in descending order for AFPs. Click on any of the underlined column titles to sort by the selected column.

Note: When you sort by Entry Time for an airspace element (FCA), the Arrival Hour column header changes to Entry Hour. Also, when you sort by Exit Time for an airspace element (FCA), the Arrival Hour column header changes to Exit Hour.

OAK Flight Status Flight List Generated at 0758z on 09/22/2010

*An asterisk indicates the flight has not yet departed.

Arrival Hour	ACID	Slot Time	ETA	ETE	Slot Time	Origin	DCenter	Comments
0700	EDX3814	22/0703A	E22/0746	43	PHL	ZNY		GAAP Slot, Subbed with Window -1, ETE Fluctuation 44
	UAL671	22/0747A	E22/0745	-2	ORD	ZAU		Pop-up at 21/2318, GAAP Slot, Early Departure -2
	EDX3015	22/0647A	E22/0732	45	EWR	ZNY		GAAP Slot, ETE Fluctuation 45
	JB0244	22/0715A	A22/0728	13	LGB	ZLA		Early Departure -4, ETE Fluctuation 17
	JB0475	22/0641A	A22/0725	44	BOS	ZBW		Exempt, Late Departure 2, ETE Fluctuation 42
	COA673	22/0637A	A22/0724	47	IAH	ZHU		Pop-up at 22/0228, GAAP Slot, Late Departure 16, ETE Fluctuation 31
	EDX1583	22/0621A	A22/0723	62	MEM	ZME		Pop-up at 22/0223, GAAP Slot, Late Departure 29, ETE Fluctuation 33
0600	SWA135	22/0643A	A22/0654	11	MCI	ZKC		GAAP Slot, Subbed with Window -2, ETE Fluctuation 13
	DAL1877	22/0613A	A22/0648	35	ATL	ZTL		Pop-up at 22/0108, GAAP Slot, Late Departure 9, ETE Fluctuation 26
	UAL389	22/0549A	A22/0614	25	DEN	ZDV		Duplicate Flight, GAAP Slot, ETE Fluctuation 25
0500	ASA412	22/0545A	A22/0555	10	SEA	ZSE		GAAP Slot, Subbed with Window -2, ETE Fluctuation 12
	TAG538*	22/0417A	C22/0552	95	TRK	ZOA		Pop-up at 21/2318, Time Out Delayed 95, TO Cancelled at 22/0623
	N906JR	22/0543A	A22/0552	9	MCE	ZOA		Pop-up at 22/0353, GAAP Slot, Early Departure -12, ETE Fluctuation 21
	SKW78F	22/0535A	A22/0550	15	SLC	ZLC		GAAP Slot, ETE Fluctuation 15
	SWA1707	22/0530A	A22/0549	19	ONT	ZLA		GAAP Slot, Subbed with Window -1, ETE Fluctuation 20
	SWA1992	22/0537A	A22/0539	2	SEA	ZSE		GAAP Slot, Subbed with Window -2, ETE Fluctuation 4

Figure 4: Flight Status Report

For airspace elements (e.g., FCAs) Entry time is used instead of ETA since ETA is not applicable to an airspace element. The Entry time is the time at which a flight enters an airspace element's boundaries.

Note: Airspace elements also have an Exit field, the time a flight traversed out of the FCA, and CTL_ELEM indicates the type of initiative that is currently controlling the flight.

The Comments column indicates why a flight is not arriving at its designated arrival slot. Table 1 below describes each of the comments that may appear in the Comments field.

Table 1: FSA Comments

Comment	Description
Early Departure	The flight departed early. This comment appears if $ETD - CTD \leq -1$.
Late Departure	The flight departed late. The comment appears if $ETD - CTD \geq 1$.
Airline Delay	The delay reported by the airline as indicated by the LRTD field. This calculation is measuring reported airline delay in excess of the currently assigned ATC delay . Additionally, for departed flights RT-FSA only counts delay that was incurred. Therefore, if the CTD was 1300, the LRTD was 1330 but the ETD at departure was 1315 then the reported airline delay is 15 minutes. Note: airline delay also is reflected in the Late Departure calculation when the LRTD (and actual ETD) exceeds the current CTD.
Time-out Delay	The flight was time out delayed by ETMS's timeout. International flights are excluded since DZ messages typically are not received for international flights. Note: FSM does not use the TOD flag to determine if a flight is in time out delay. Instead, FSM considers a flight to be in timeout delay if the current $ETD < ADL$ time. Thus, FSM and RT-FSA may not always show the same flights as being timeout delayed.
Subbed With Window	The flight's CTA is not equal to its Slot Time due to airline subbing that took advantage of the 20-minute window. Note: the difference between the slot time and CTA could actually be greater than 20 minutes due to multiple subs.
ETE Fluctuation	The current ETE, which is $(ETA - ETD)$, does not equal the en-route time reflected in the current control times $(CTA - CTD)$. The minutes displayed after this comment are equal to the difference $(ETA - ETD) - (CTA - CTD)$.
Exempt	The flight was exempt when initially controlled and has remained exempt (i.e., the Exempt flag =Y for all flight records that have control times).
Data Anomaly	FSA has detected a data abnormality that indicates a data processing error has occurred. Flights with a Data Anomaly are omitted from the Compliance, Pop-Up, CNX That Flew, and Time Out Delay reports. See Appendix B for a listing of the data anomalies FSA looks for.
CNX That Flew	A cancelled flight that operated and was not reinstated before departing via a FM, FZ, or DZ message.
Non Program Flight	The flight was not originally in the program but is now arriving during the program hours due to a delay or early arrival. The following rules are used to identify these flights: the flight does not have a slot ID; it has a

	SGTA; the (IGTA-Taxi) does not fall within the program hours; however the current ETA does fall within the program hours.
Pop-up	The flight does not have a SGTD/SGTA, the pop-up time > program model time, and BETA or ETA falls within the program hours. The pop-up time is the time stamp of the first ADL record received for the flight.
Diversion Recovery	The DV_REC flag is set to Y for the flight.
Cancelled	Shows the type of cancellation and the time of cancellation. If a flight has multiple cancellation flags set, only one cancellation reason is shown according to the following precedence: <ol style="list-style-type: none"> 1. SI – Cancellation submitted by an airline through an SI message. 2. FX – Cancellation submitted by an airline through a CDM FX message. 3. TO – Indicates the flight is currently timeout cancelled by ETMS. 4. RZ – NAS flight plan cancel message. 5. RS - Internal ETMS message generated when a specialist takes an OAG flight out of the database. 6. DV - Indicates the flight diverted to an alternate destination 7. DO – Indicates the flight rerouted out of an AFP controlled airspace element.
Reinstated	Indicates that a flight has been reinstated after being cancelled. The reinstatement time displayed is the first ADL time where the flight changed from a cancelled status to a non-cancelled status, either due to departure or the receipt of an FM, FZ, and DZ message.
Duplicate	Indicates there may be multiple occurrences of a flight in FSM due to a data processing error, such as an ETMS flight mismatch. Some shuttle flights may also be flagged as duplicates.
GAAP Slot	Indicates that a pop-up flight has received a GAAP slot assignment. Affiliated pop-ups that received a slot but that subsequently cancel continue to have the words 'GAAP slot' in the Comments column. Unaffiliated pop-ups that received a slot but that subsequently cancel do not continue to have the words 'GAAP slot' in the Comments column.
DAS Delay	Indicates that a pop-up flight received a DAS Delay.

Exclusions

RT-FSA does not display general aviation and military flights for airline users.

Adaptive Compression Report

The Adaptive Compression report shows which flights were included in the last Adaptive Compression (AC) run for the element. This report is available for both airport and airspace data sets. This report applies for GDPs and AFPs and the report link is available from a GDP/AFP

element that you have opened to view all available reports. The Adaptive Compression report also includes unassigned slots that are adaptively compressed for an UDP or a GAAP program.

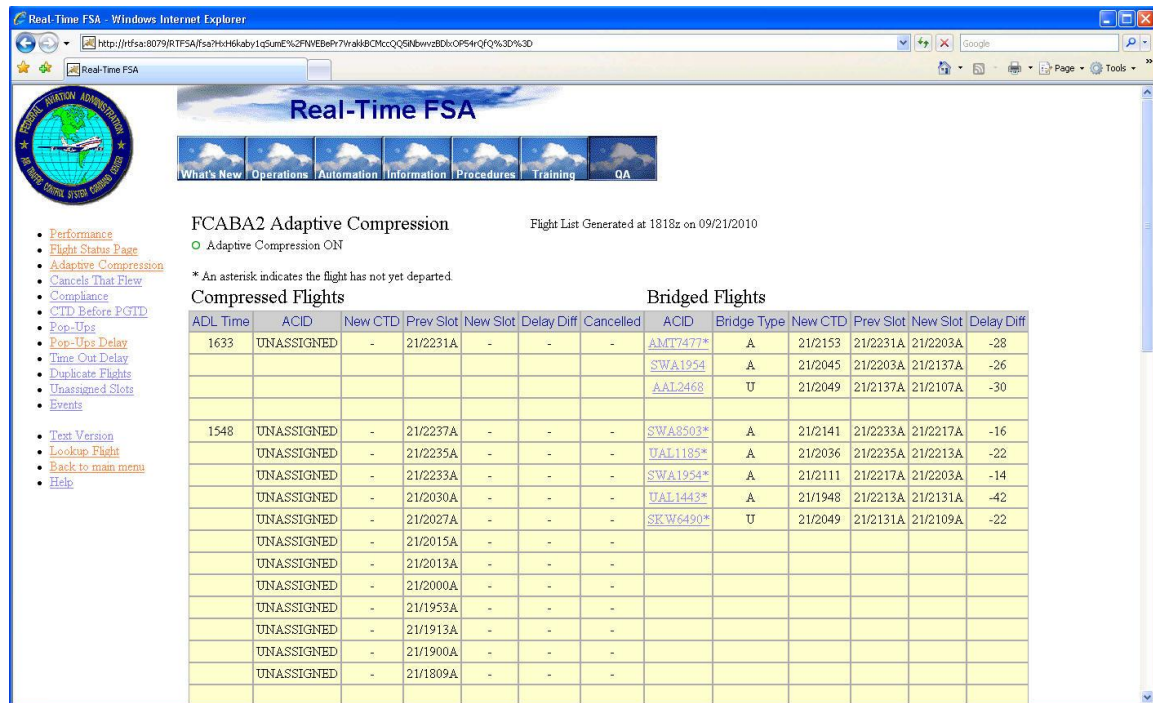


Figure 5: Adaptive Compression Report

The Adaptive Compression report contains the following information.

- Flights that received AC.
- Flights that were Bridged.
- The time that the flight list was generated.
- The current AC status from the Current Initiatives page, located just underneath the report title.
- The report status. See "[Accessing the Reports](#)" for more information on AC statuses.
- An asterisk next to the ACID for a flight that has not yet departed. A space appears between the status indicator line and this line for flights that have yet to depart.

The Adaptive Compression Report groups the Compressed and Bridged flights by descending ADL Time by default. So the most recent ADL Time appears first in the table. You can click on the ACID field for each flight list section to see the Flight History for that flight. The sort order for the Compressed and Bridged flights tables is by descending order of New Slot.

The Compressed Flights table shows all flights within the element that received AC. It displays the following data for each flight:

- ADL Time – listed as part of the Compressed Flights section but is actually shared by Compressed and Bridged flights.
- ACID – The flight number. If “Unassigned”, “Prev Slot” column will be populated for these rows.
- New CTD – The new control time of departure.

- Previous Slot – The previous ASLOT belonging to the flight prior to the AC (this includes the ASLOT Suffix).
- New Slot – The new ASLOT belonging to the flight after the AC (this includes the ASLOT Suffix).
- Delay Difference – The difference between the Previous Slot field and the New Slot field.
- Cancelled – Set to “Y” if any cancel flags are set.

The Bridged Flights table shows all flights within the element that were Bridged. It displays the following data for each flight:

- ACID – The flight number
- Bridge Type – The valid values are U for Unassigned Slot Compression (UBRG) and A for Adaptive Slot Compression (ABRG).
- New CTD – The new control time of departure
- Previous Slot – The previous ASLOT belonging to the flight prior to the AC (this includes the ASLOT Suffix).
- New Slot – The new ASLOT belonging to the flight after the AC (this includes the ASLOT Suffix).
- Delay Difference – The difference between the Previous Slot field and the New Slot field.

Exclusions

Does not apply to GS initiatives.

Cancels That Flew Report

Overview

The "Cancels that Flew" report shows all controlled flights that were cancelled then operated without being reinstated via a FM, FZ, or FA message.

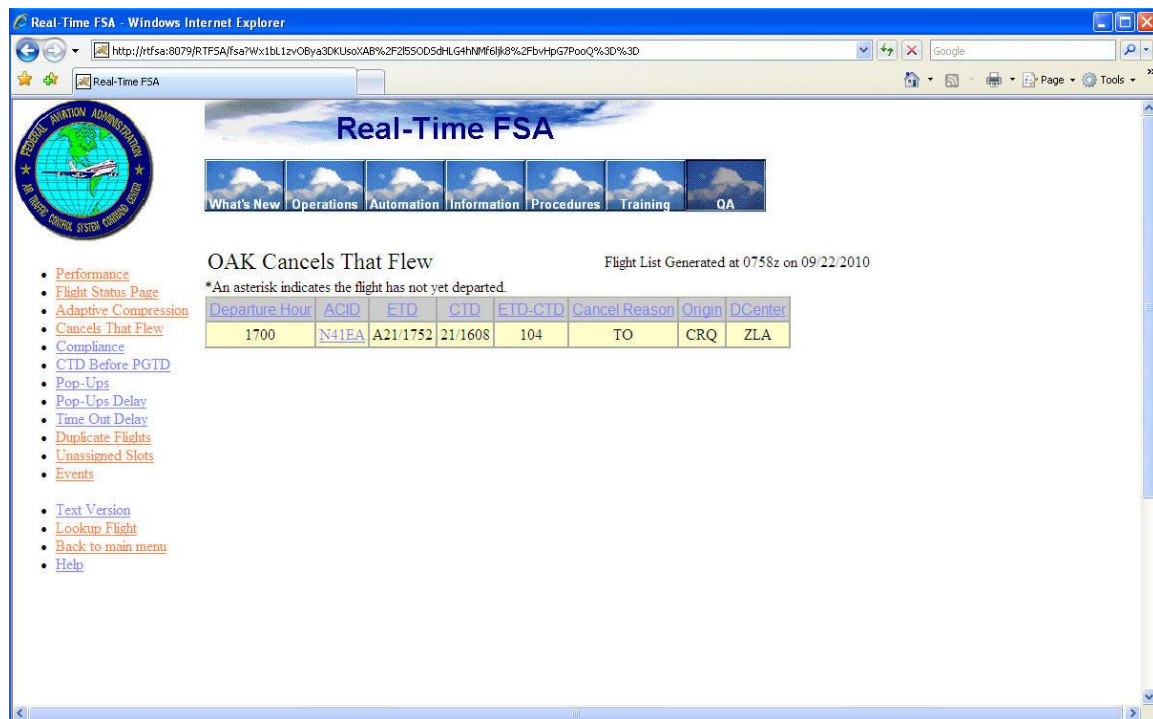


Figure 6: Cancels That Flew

The **Cancel-Reason** column shows the most current cancellation reason. If a flight has multiple cancellation flags set, only one cancellation reason appears according to the following precedence: SI, FX, TO, RZ, RS, RM, DO.

Usage

An airline may unintentionally operate a cancelled flight because they are unaware that it was cancelled. Typically this occurs when a flight has been timeout cancelled by ETMS. Review the cancellation reason for the flights in this report. The presence of flights that operated after time out cancelling may indicate the airline is having difficulty keeping their CDM flight data current.

System gaming can be identified by looking for flights that are cancelled, subbed, and then operated at the original slot time. Look to see if any of the “Cancels that Flew” were SI or FX cancelled. For those identified, click on the ACID to view the flight history. Review the CTL_Type field to see if the flight was subbed. Also check to see if the flight departed at its current CTD or the original CTD assigned to the flight prior to being cancelled and subbed.

Exclusions

Diversion cancellations are not included in this list. Flights for which FSA has detected a data anomaly also are excluded.

For airline users, general aviation and military flights do not appear.

Compliance Report

The compliance flight list shows all flights that did not comply with their assigned controlled time of departure regardless of whether they were controlled by a GS, AFP, or GDP when they departed. A flight is considered "non-compliant" if it failed to depart within a specified “compliance window”. The CTD column shows the CTD used to measure compliance. For GDP

or AFP controlled flights this is always equal to the CTD the flight had at departure. The compliance window is the maximum number of minutes a flight may depart prior to its CTD or after its CTD and still be considered compliant. Authorized ATCSCC personnel may change the compliance window through the *Site Administration* link on the FSA home page. See Appendix C for additional information.

Currently, FSA uses a (-5, +5) minute compliance window. This means a flight is considered non-compliant if it departed early by more than 5 minutes, or it departed late by more than 5 minutes. By default, RT-FSA sorts the Compliance Flight List by Departure Hour. Click on any of the underlined column titles to sort by the selected column.

- “GDP” appears in the Control Action column if a GDP controls the flight when it departs.
- “AFP” appears in the Control Action column if an AFP controls the flight when it departs.
- “GS” appears in the Control Action column if A GS controls the flight when it departs. For GS flights, RT-FSA always shows the CTD used to measure compliance. For the logic used for measuring compliance, see below.
- If an update is issued for a GS flight, RT-FSA shows the update time and uses this time to measure compliance.

Departure Hour	ACID	ETD	Depart CTD	ETD-CTD	Origin	Dest	DCenter	Non-Compliance Reason	Comments	Control Action
1700	CHQ7782	A17/1740	17/1709	31	ORD	IND	ZAU	Reason		AFP
	SKW6752	A17/1729	17/1645	44	ORD	ALB	ZAU	Reason		AFP
	N989TW	A17/1728	17/1613	75	BWI	MDW	ZDC	Reason		GDP
	N376SC	A17/1724	17/1647	37	GRR	OMA	ZAU	Reason		GDP
	N52EF	A17/1722	17/1612	70	RFD	ARR	ZAU	Reason		GDP
	N1535Z	A17/1720	17/1512	128	LNK	TOL	ZMP	Reason		GDP
	ASH7305	A17/1719	17/1645	34	ROC	ORD	ZOB	Reason		AFP
	N258PE	A17/1715	17/1417	178	DET	JVL	ZOB	Reason		GDP
	EIA145	A17/1714	17/1606	68	MKE	COU	ZAU	Reason		AFP
	N1374L	A17/1713	17/1642	31	MSN	PWK	ZAU	Reason		GDP
	SWA1194	A17/1712	17/1610	62	MDW	DEN	ZAU	Reason		AFP
	SWA1194	A17/1712	17/1610	62	MDW	DEN	ZAU	Reason		AFP
	UAL398	A17/1712	17/1555	77	ORD	BDL	ZAU	Reason		AFP
	ASH7263	A17/1709	17/1429	160	ORD	ABE	ZAU	Reason		AFP
	FIV509	A17/1702	17/1620	42	MDW	MEM	ZAU	Reason		GDP
1600	N837JM	A17/1659	17/1730	-31	MDW	SBN	ZAU	Reason		GDP
	JUS199	A17/1646	17/1612	34	CID	YIP	ZAU	Reason		GDP
	N402MC	A17/1644	17/1712	-28	PWK	JEF	ZAU	Reason		GDP

Figure 7: Compliance Report

Note: RT-FSA uses the CTD assigned to the flight when it departs to measure compliance.

FCA Arrival Compliance Report

In the top left-hand corner of the departure Compliance report for an FCA is a link to the FCA Arrival Compliance Report. This report displays a list of all AFP impacted flights that are not Control Time of Arrival (CTA) compliant. Non-compliance is anything outside of a plus or minus five minutes entry window (+/- 5). You can get back to the departure Compliance report by clicking on the Compliance link in the left-hand menu bar.

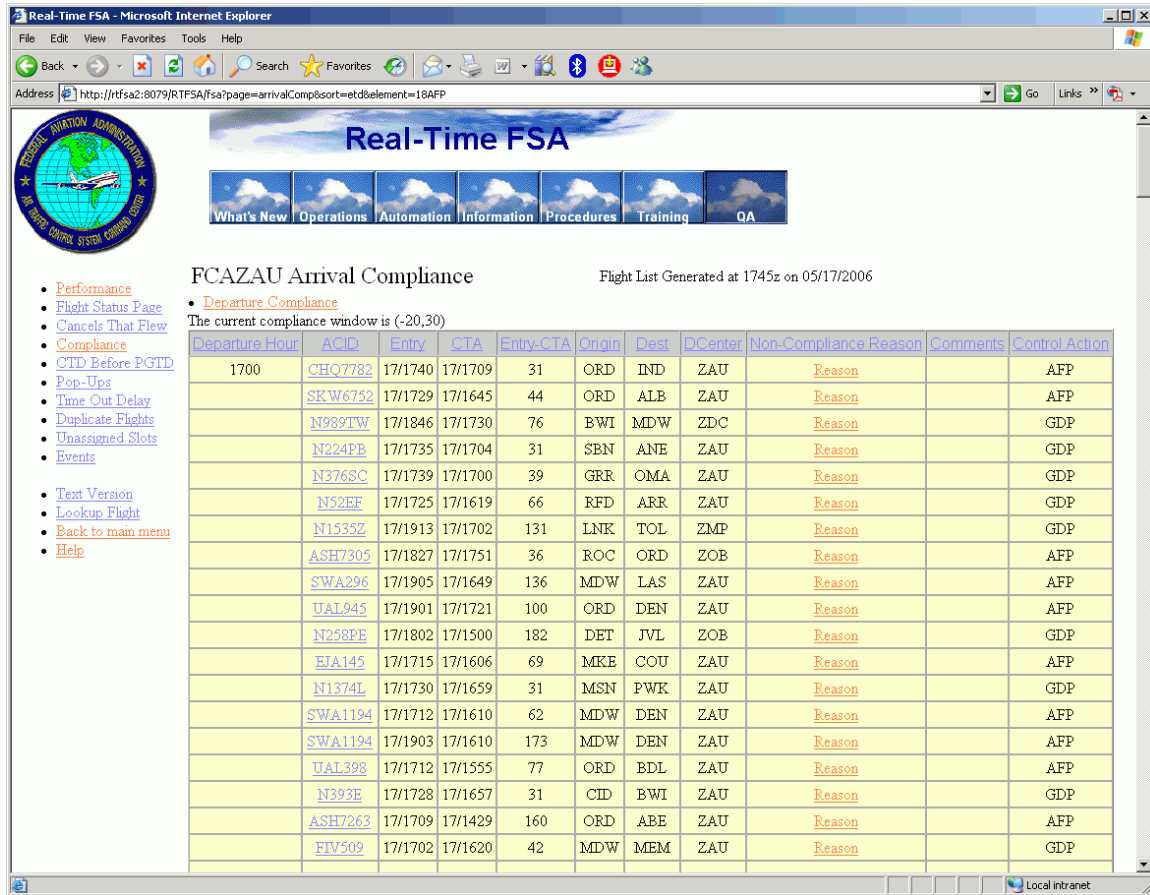


Figure 8: Compliance Report

When you sort by Entry Time for an airspace element (FCA), the Departure Hour column header changes to Entry Hour.

Compliance Remarks

The Non-Compliance Reason column on the Compliance report allows you to enter a reason for non-compliance. Clicking on a link in the Non-Compliance Reason column displays the Compliance Remarks window for the associated flight, as shown in Figure 9.

Real-Time FSA - Microsoft Internet Explorer

Real-Time FSA

Compliance Remarks for SWA333 BNA-BWI, ARTD=1732 CTD=2148

Non-Compliance Reason: Aircraft Operator Help

Comments

Flight Held for connecting passengers

Submit Cancel

Facility ID BWI Operator Initials: AMW

Figure 9: Compliance Remarks

You must fill out all fields displayed on the form prior to clicking **Submit**.

To specify a Non-Compliance Reason

1. Click on the down arrow to display a list of reasons.
2. Select 1 of 5 possible reasons:
 - Aircraft Operator
 - Equipment
 - TMI
 - Weather
 - Other

Note: Click on the Help button for a description of each reason.

3. Provide a more detailed explanation of the circumstances which prevented the flight from departing in the Comments text area.

Note: For FAA users, the person submitting the information should provide his or her Facility ID and operator initials. Airline users should enter their three letter carrier abbreviation in the Facility ID textbox.

4. Click **Submit**.

RT-FSA records the following information in the FSA database: the flight ID, the non-compliance reason, the comments entered, the current Zulu time, the facility Id, the operator initials, and the IP address of the sender. Storing the preceding information allows the non-compliance data to be matched back to other flight information in the FSA database, for reporting and analysis purposes.

5. You receive confirmation that the information you provided has been saved.
The reason entered appears in the compliance report as shown in Figure 10.
6. If the reason you entered does not appear in the Non-Compliance Column, click on your browser's reload button. The link should now reflect the last reason entered for the flight. Other users will not see the reason entered until the compliance report is reloaded in their browser. RT-FSA reports automatically reload every 2 ½ minutes. Any time a user clicks on a Non-Compliance Reason link RT-FSA checks to see if any prior information was entered for the flight.

The screenshot shows the Real-Time FSA web application in a Microsoft Internet Explorer browser. The address bar displays the URL: <http://rtfsa2:8079/RTFSA/fsa?page=comp&sort=etd&element=18GDP#R4>. The page features a navigation menu on the left with links such as Performance, Flight Status, Page, Cancels That Flew, Compliance, CTD Before, PGTD, Pop-Ups, Time Out Delay, Duplicate Flights, Unassigned Slots, Events, Text Version, Lookup Flight, Back to main menu, and Help. The main content area is titled "Real-Time FSA" and includes a "Flight List Generated at 1749z on 04/03/2006". Below this, a table displays flight data with columns for Departure Hour, ACID, ETD, Depart CTD, ETD-CTD, ARTD, Origin, Dest, DCenter, Non-Compliance Reason, Comments, and Control Action. The table is filtered for flights with a departure hour of 1700 and 1600. The Non-Compliance Reason column contains links labeled "Reason" and "Aircraft Operator".

Departure Hour	ACID	ETD	Depart CTD	ETD-CTD	ARTD	Origin	Dest	DCenter	Non-Compliance Reason	Comments	Control Action
1700	SWA1594	A03/1746	03/2132	-226		MCO	BWI	ZJX	Reason		GDP
	USA1042	A03/1738	03/1724	14		CLT	BWI	ZTL	Reason		GDP
	SWA2681	A03/1736	03/1746	-10		HOU	BWI	ZHU	Reason		GDP
	SWA959	A03/1736	03/1748	-12		MCI	BWI	ZKC	Aircraft Operator		GDP
	SWA333	A03/1732	03/2148	-256		BNA	BWI	ZME	Aircraft Operator		GDP
	AAL1664	A03/1720	03/1745	-25		DFW	BWI	ZFW	Reason		GDP
	SWA291	A03/1711	03/2214	-303		ALB	BWI	ZBW	Reason		GDP
	SWA961	A03/1706	03/2215	-309		BUF	BWI	ZOB	Reason		GDP
	LOF3508	A03/1704	03/1634	30		PIT	BWI	ZOB	Reason		GDP
	TRS415	A03/1702	03/2205	-303		DAY	BWI	ZID	Reason		GDP
1600	SWA2323	A03/1656	03/1854	-118		RDU	BWI	ZDC	Reason		GDP
	SWA615	A03/1646	03/2209	-323		CLE	BWI	ZOB	Reason		GDP
	TRS454	A03/1643	03/1934	-171		ATL	BWI	ZTL	Reason		GDP
	TRS477	A03/1639	03/2206	-327		BOS	BWI	ZBW	Reason		GDP
	COA226	A03/1638	03/1618	20		IAH	BWI	ZHU	Reason		GDP

Figure 10: Non-Compliance Reason

To update the Non-Compliance Reason

You can not edit information which has been submitted. However, you may provide an alternative reason and additional comments. To do so, follow the same procedure described above. When you click on the link in the Non-Compliance Reason column, any information previously entered for the flight appears at the top of the Compliance Feedback window, as depicted in Figure 11 below. You may select an alternative reason or the same reason as previously entered. Before clicking Submit you must also enter information in the Comments, Facility ID, and Operator initials fields. Once the Submit button is clicked the last reason entered will be displayed in the Non-Compliance Reason Column for the associated flight.

Real-Time FSA - Microsoft Internet Explorer

Real-Time FSA

Compliance Remarks for SWA333 BNA-BWI, ARTD=1732 CTD=2148

At 17:50: BWI: Aircraft Operator - Flight Held for connecting passengers

Non-Compliance Reason:

Comments

Facility ID Operator Initials:

Figure 11: Original reason appears on Compliance Remarks page.

Exclusions

“Cancels that Flew” and flights for which FSA has detected a “data anomaly” do not appear in the Compliance report. Ground stopped flights that departed prior to receiving a control time and international flights are also excluded. Flights that departed, for which no DZ message was received, are excluded. The ARTD field is blank for these flights.

For airline users, non-compliant general aviation and military flights do not appear.

Usage

The Compliance Report can be used to identify FAA facilities that are not releasing flights within the compliance window as well as airlines that fail to depart within the compliance window. Sort

by Dcenter to see if the airports within a particular center are releasing flights early or late. A lack of compliance within a particular departure center may indicate the center is trying to deal with local traffic management initiatives such as ESP delays or miles-in-trail restrictions. Sorting the Compliance report by ACID can help identify airlines that are consistently departing flights early or late. However, when looking at airline compliance, keep in mind that late departures may be due to departure delays at the origin – not airline delays.

NOTE: The accuracy of the compliance report can be affected by suspension of EDCTs, “white hat” approvals for which an EDCT update was not submitted, and ground stops that are not implemented using FSM. When any of the preceding events occur, a flight’s CTD is not updated in the data; thus, the flight may appear non-compliant.

How RT-FSA Measures Compliance

If a flight is controlled by a GDP or AFP when it departed, compliance is measured using the specified compliance window (currently -5, +5).

If a flight is controlled by a GS when it departed, the flight will be considered compliant if it departs after the end time of the GS ($ARTD \geq CTD$ from the GS). If an airline subs the GS flight and changes the CTD, FSA will still measure compliance based on the CTD assigned by the GS, except in the case where the substitution resulted in a CTD outside of the GS parameters. In the event that a substitution assigns a control time prior to the start time of a GS or after the end time of a GS, compliance will be measured based on the CTD assigned by the substitution using a (-5, +5) minute window. If an update or blanket delay is issued for a GS flight, FSA will measure compliance based on the update or BLKT time using the current compliance window.

CTD Before PGTD Report

Overview

The CTD before PGTD report shows all flights with a CTD that is earlier than their PGTD and have either not departed, or have departed and are non-compliant based on the compliance window (see Figure 12 below). A flight appears on this list under one of two conditions- it receives a CTD earlier than its PGTD, or a PGTD is submitted after the CTD was assigned and it is later than the CTD. If the flight departs and is compliant, the flight is removed from the list. If it is non-compliant after departure, it stays on the list. Also, if a program event runs, and the flight receives a new CTD that is later than its PGTD, the flight is removed from this report.

The CTD before PGTD Report is sorted by ETD in descending order (excluding the ETD Prefix). Click on any of the underlined column headers to sort by that value.

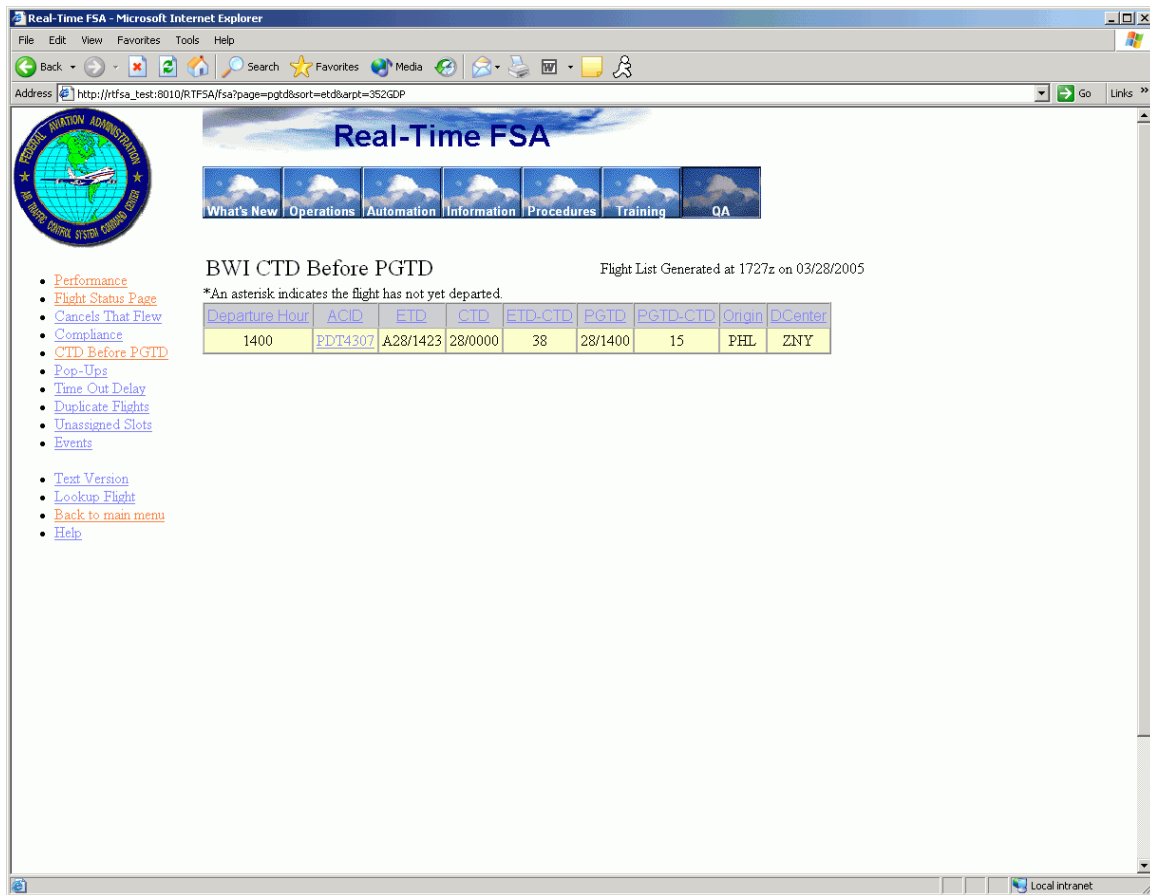


Figure 12: CTD Before PGTD

Exclusions

“Cancels that Flew” and flights for which FSA has detected a "data anomaly" do not appear in the CTD before PGTD Report. Ground stopped flights that departed prior to receiving a control time and international flights also are excluded.

Pop-up Report

Overview

The Pop-Up Report shows all pop-ups arriving (or expected to arrive) during the program hours. For the purposes of this report, a pop-up flight is defined as any flight that does not have a SGTG/SGTA and did not appear in the ADL data at the time the initial program was modeled. This list shows all pop-ups regardless of whether they have subsequently been given a slot in a revision.

Real-Time FSA - Microsoft Internet Explorer

Address: http://rtfsa2:8079/RTFSA/fsa?page=popup&sort=popupTime&element=49AFP

Real-Time FSA

What's New Operations Automation Information Procedures Training QA

FCAGT1 Pop-Ups Flight List Generated at 1457z on 04/18/2006

*An asterisk indicates the flight has not yet departed.

Pop-Up Hour	ACID	Pop-Up Time	Entry	CTD	CTA	Slot Time	Origin	Dest	DCenter	TOD Minutes	Cancel Status	Subbed
1400	N9090B*	18/1457	18/1649	18/1614	18/1649	18/1649Z	AGC	PTK	ZOB	0		
	N219RB*	18/1453	18/1705	18/1704	18/1705	18/1705Z	DET	LEX	ZOB	0		
	N44FM*	18/1453	18/1642	18/1634	18/1642	18/1642Z	GSH	FRG	ZAU	0		
	FLC76	18/1453	18/1523	18/1618	18/1618	18/1618Z	CMH	IND	ZID	0		
	STING11	18/1453	18/1338	18/1439	18/1439	18/1439Z	TOL	TOL	ZOB	0		
	JOSA599	18/1453	18/1453	18/1548	18/1548	18/1548Z	FFO	ADW	ZID	0		
	N56AY	18/1453	18/1552	18/1422	18/1646	18/1646Z	OXC	HNB	ZBW	15		
	EJA628*	18/1453	18/1805	18/1805	18/1805	18/1805Z	LUK	TOL	ZID	0		
	ROSS115	18/1449	18/1534	18/1433	18/1628	18/1628Z	HEF	LUK	ZDC	10		
	N715JW*	18/1449	18/1605	18/1605	18/1605	18/1605Z	CGF	FWA	ZOB	0		
	N12WF*	18/1449	18/1623	18/1611	18/1623	18/1623Z	IND	OSU	ZID	0		
	JUS823	18/1449	18/1457	18/1515	18/1515	18/1515E	YIP	YIP	ZOB	0		
	N730SS*	18/1445	18/1726	18/1705	18/1726	18/1726Z	EYE	OSU	ZID	0		
	N300TM	18/1445	18/1442	18/1526	18/1538	18/1538Z	GWB	EXX	ZAU	0		
	N374SP*	18/1445	18/1629	18/1604	18/1629	18/1629Z	MZZ	TZR	ZAU	0		
	EJA624*	18/1439	18/1835	18/1701	18/1751	18/1751Z	TEB	MDW	ZNY	0		
	N22G*	18/1437	18/1719	18/1719	18/1719	18/1719Z	CAK	DET	ZOB	0		
	ELJ206*	18/1437	18/1622	18/1605	18/1622	18/1622Z	LEX	CVG	ZID	0		
	N84CA*	18/1437	18/1609	18/1605	18/1609	18/1609Z	PTK	ILM	ZOB	0		
	AWI9403*	18/1437	18/1627	18/1549	18/1627	18/1627Z	STL	PHL	ZKC	33		
	OPT725*	18/1434	18/1753	18/1645	18/1741	18/1741Z	TEB	IND	ZNY	0		
	KFS63*	18/1433	18/1618	18/1618	18/1618	18/1618Z	YIP	DET	ZOB	0		
	N730SS*	18/1433	18/1611	18/1545	18/1611	18/1611Z	IND	DET	ZOB	0		

Figure 13: Pop-up Report

The **Pop-up Time** column shows the time the flight first appeared in the ADLs. The **TOD Minutes** column indicates whether the flight is currently in time out delay. The **Cancel-Status** column shows whether the flight has been cancelled. If a flight has multiple cancellation flags set, only one cancellation reason appears according to the following precedence: SI, FX, TO, RZ, RS, RM, DO. The **Subbed** column indicates whether the flight has ever been subbed by the airline via a SI message or simplified sub message.

By default, RT-FSA sorts the pop-up flight list by the **Pop-Up Time**. Click on any of the underlined column titles to sort by the selected column.

Note: For airspace elements (i.e., FCAs) Entry time is used instead of ETA since ETA is not applicable to an airspace element. The Entry time is the time at which a flight enters an airspace element's boundaries.

Exclusions

Flights for which a data anomaly has been identified do not appear in the pop-up list.

For airline users, general aviation and military pop-up flights do not appear.

Usage

The pop-up report shows the unscheduled flights that have been filed since the initial GDP or AFP was executed. To see how many pop-ups have been filed since the last revision/extension sort the pop-up list by pop-up time and look for flights whose pop-up time is later than the model time of the revision/extension.

Sort the pop-up flight list by ETA (for GDPs) or ENTRY (for AFPs) to determine if the excess demand for a particular time period is due to pop-up traffic.

Sort the pop-up report by ACID to see which carriers are filing pop-up flights. By reviewing the Pop-up report on a consistent basis, it may be possible to identify trends such as whether a carrier tends to operate the pop-ups it files.

Review the TOD and Cancel Status columns for pop-up flights that are contributing to the “Rolling Spike Problem” by time out delaying or time out canceling. If a large number of pop-ups are time out canceling, this may indicate there is a problem with duplicate calls signs or that some other automation problem is occurring.

Pop-Up Delay Report

The Pop-Up Delay Report displays unassigned delay for a flights lead time. Specifically, it displays the lead time (in hours, up to 8 hours) and the total number of flights assigned to arrive at every hour for the duration of the program.

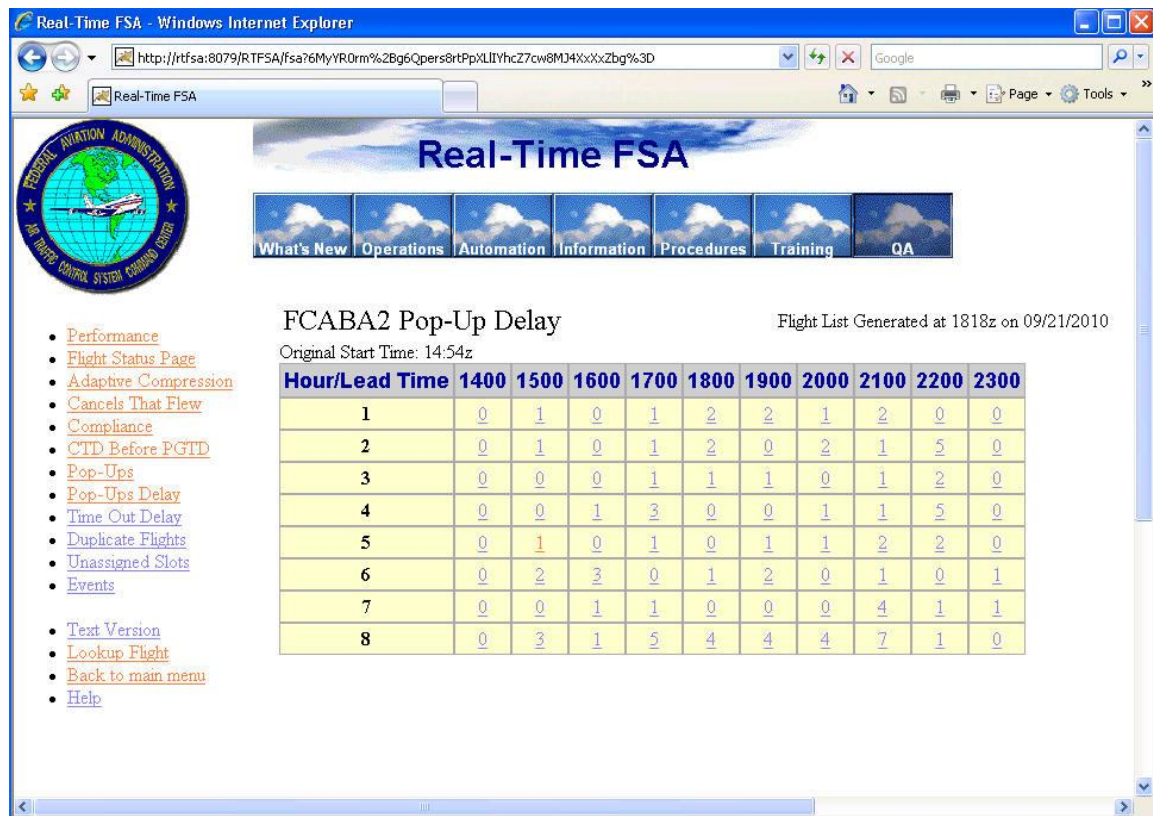


Figure 14: Pop-Up Delay Report

Drill Down Capabilities

Selecting on a non-zero Hour/Lead Time value in the **Pop-up Delay Report** will allow a user to examine the unassigned delay for flights in a program (UDP or a GAAP program) at a certain lead time (how far in advance the flight has become known). The new window is displayed under the Pop-up Delay Report and includes ACID, slot type, unassigned slot delay, and Z slot delay. Z slot delay is the difference between the original airport parking gate arrival time and the arrival slot time given to a controlled flight. It also includes the total and average delay for Unassigned Slot Delay and Z Slot Delay for the specific hour and lead time hour.

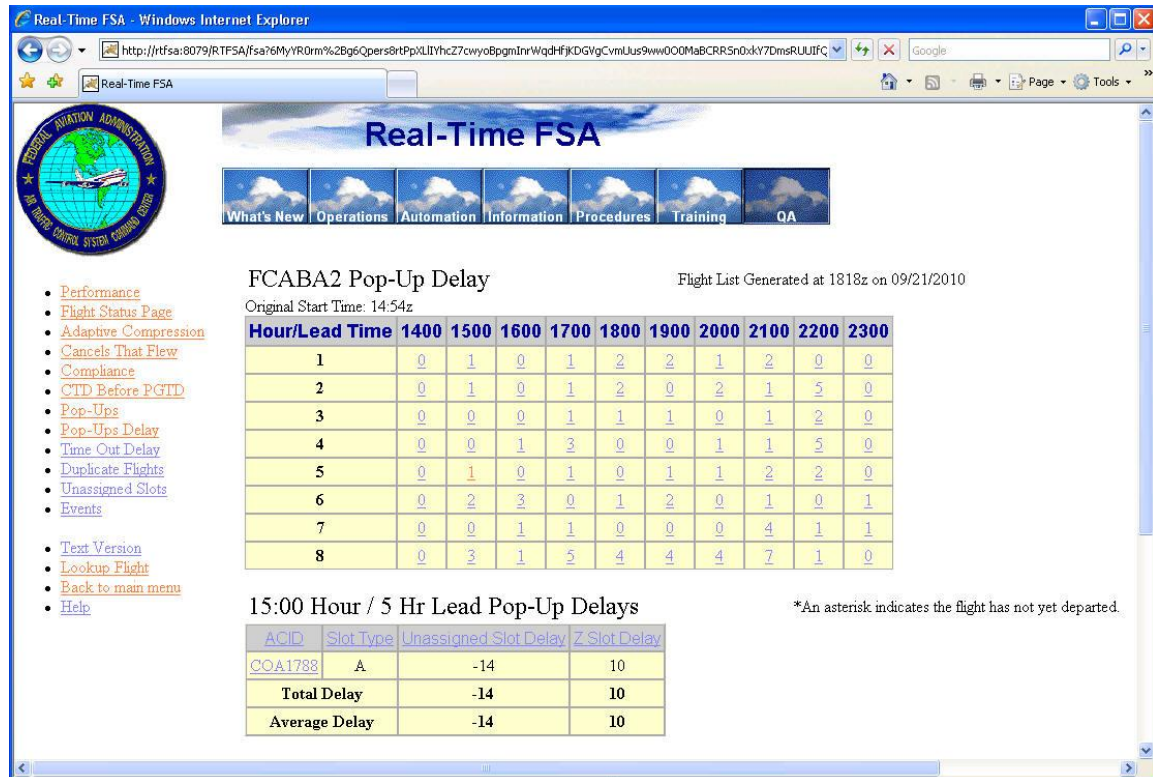


Figure 15: Pop-Up Delays

Time Out Delay Report

The Time Out Delay report lists all flights that are currently in time out delay.



Figure 16: TOD Report

The column labeled *Minutes Of TOD* shows the total number of minutes the flight has been in timeout delay. The *Cancel Status* column shows whether the flight is currently cancelled as well as the time at which it was cancelled. If a flight is reinstated it no longer appears as cancelled in this report.

Note: For airspace elements (i.e., FCAs) Entry time is used instead of ETA since ETA is not applicable to an airspace element. The Entry time is the time at which a flight enters an airspace element's boundaries.

By default RT-FSA sorts the report by ETA for GDPs and ENTRY for AFPs. Click on any on the underlined column titles to sort by the selected column.

Note: When you sort by Entry Time for an airspace element (FCA), the Arrival Hour column header changes to Entry Hour.

Exclusions

Flights for which FSA has detected a data anomaly are not included in the timeout delay flight list. International flights are also excluded.

For airline users, general aviation and military flights do not appear.

Usage

The ETMS system timeout delays a flight if it has not departed within 5 minutes of its current ETD. Flights may timeout delay for a variety of reasons including delays at the departure airport or airline delays. ETMS will timeout cancel flights after they have been in timeout delay for 90

minutes with the following exceptions: if no airline or NAS messages have been received for a flight and it is departing from a CONUS or Canadian airport, the flight will be time out cancelled 10 minutes after the scheduled departure time. Flights that are departing outside of the contiguous United States or Canada are not timed out.

Sort the flight list by ACID to see if a particular carrier has a large number of time-out delayed flights. Follow-up with the carrier may be necessary to determine if the carrier intends to operate a flight. A large number of timeout cancelled flights for a single carrier may indicate that there is a problem with duplicate call signs. Time out delayed flights may also indicate an airline is not providing current flight information regarding delays as required by the CDM MOA. A flight will not time out delay if the airline submits LRTDs showing the delay via a CDM FM message. By reviewing the TOD report on a consistent basis, it may be possible to identify airline or ETMS data quality problems.

Duplicate Flights Report

The Duplicate Flights Report primarily identifies multiple occurrences of a flight that appear in FSM due to data processing errors, such as ETMS flight mismatches. However, some shuttle flights may also be flagged as duplicates. The intent of this report is to alert users about flights shown in FSM that may not operate. This list might show two flights as duplicates even though they are both legitimate flights, such as the case with shuttle flights. RT-FSA identifies possible duplicates by looking for flights with the same or similar ACID, origin, destination, initial gate time of departure (IGTD), and ETA for GDPs, Entry for AFPs. The list is sorted by ACID.

Note: For airspace elements (i.e., FCAs) Entry time is used instead of ETA since ETA is not applicable to an airspace element. The Entry time is the time at which a flight enters an airspace element's boundaries.

In addition to the existing logic to detect duplicate flights, the following criteria is used:

1. If two flights have the same ACID, ORIG, DEST, and IGTDs that are within 20 minutes of each other, consider the flights to be duplicates.
2. If a duplicate pair both have an ETA_Prefix of A, remove the pair from the list.
3. If one of the flights in a duplicate pair is dropped from the arrivals data, do not add the duplicate pair to the list. If the flight was dropped after being added to the list, remove the duplicate pair from the list.

These changes were made to better identify “demand unlikely to materialize.”

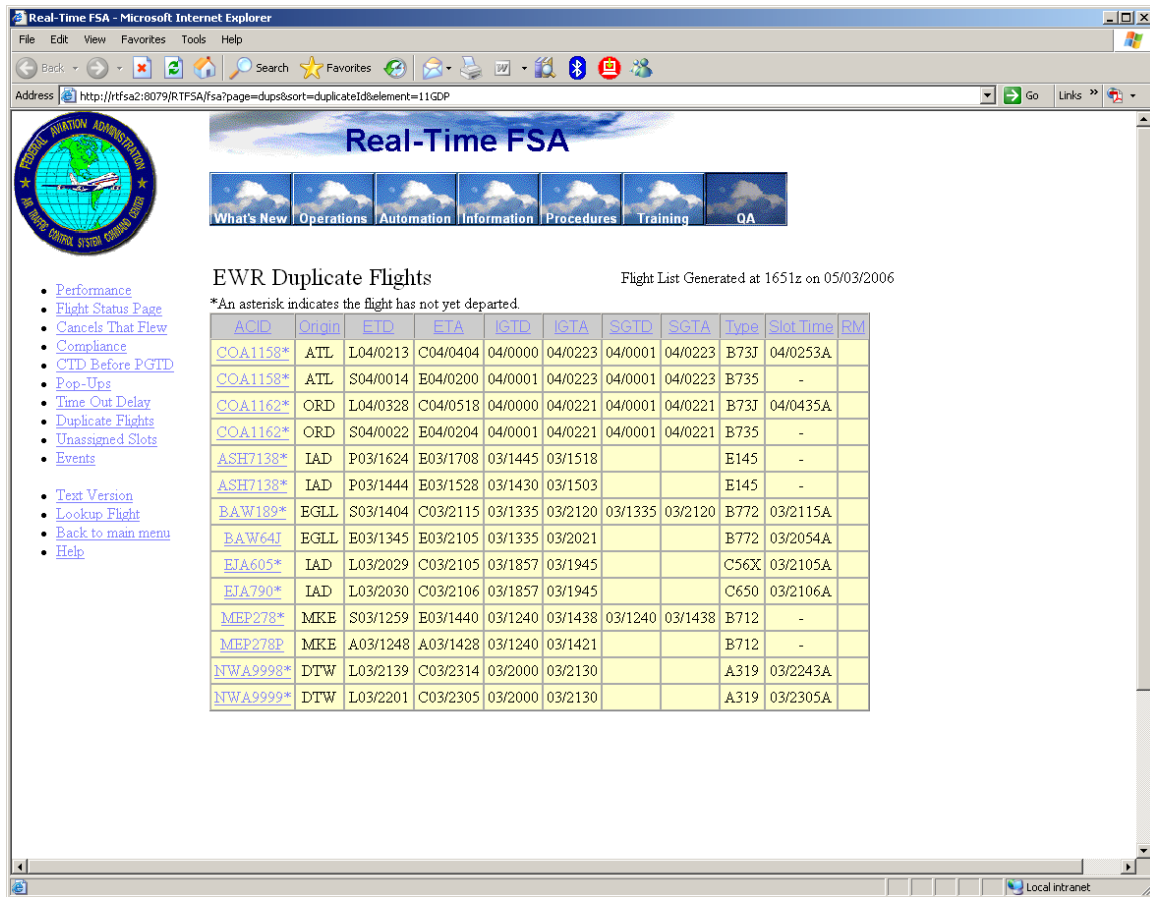


Figure 17: Duplicate Flights

Usage

The Duplicate Flights Report allows the user to easily see demand that might not materialize. If it appears that one particular carrier has a large number of flights listed, it could mean that carrier is having a data problem. Like the Time-out Delay report, follow up with a carrier may be needed to determine if a flight is going to operate or not. Looking at the ASLOT field allows you to see which flights are included in the program.

Exclusions

For airline users, general aviation and military flights do not appear.

Unassigned Slots Report

The Unassigned Slots report displays the number of Unassigned Slots for each hour in 15 minute time bins and the total number of unassigned slots for each hour. Unassigned slots exist only when a GDP or AFP with a delay assignment mode of GAAP or UDP has been issued.

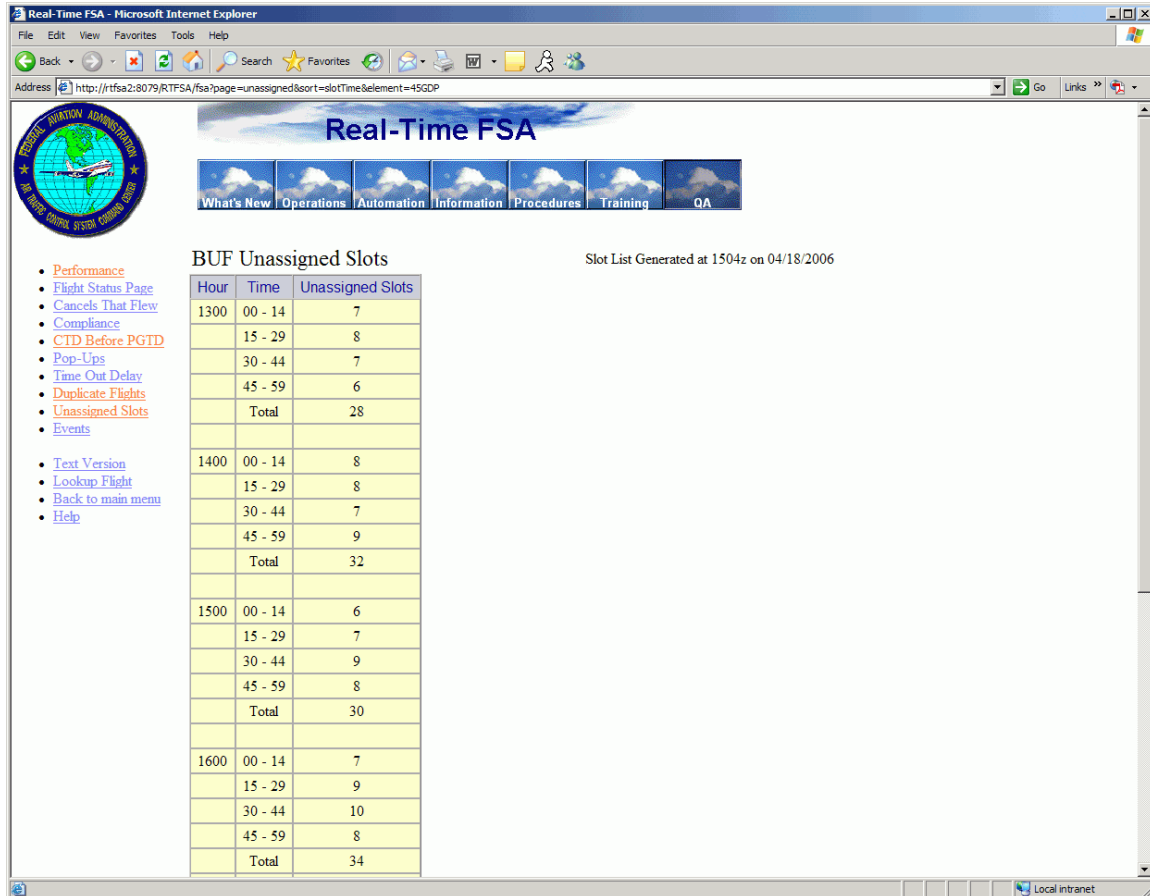


Figure 18: Unassigned Slots Report

Exclusions

Only a GDP or AFP event with a GAAP or UDP delay assignment mode can have unassigned slots. This report is therefore not relevant for other events.

Events Report

All TMI actions executed through FSM appear on the Events page including RBS++, compression, ground stops, and +/- delays. For each action taken, the Events Report displays the execution time followed by the event type and the start and end time for event. The Model Time and Reflect Time for all events also appear. The Model Time is the ADL time displayed in FSM when the event was modeled. The Reflect Time is the ADL time displayed in FSM when the new control times first appear in the data. Delay Limit appears for GDPs or AFPs with a GAAP or UDP Delay Assignment Mode. Other parameters may also be listed depending on the event type.

Real-Time FSA

What's New | Operations | Automation | Information | Procedures | Training | QA

FCADJ2 Events

Report Time	Event Type	Delay Mode	Start Time	End Time	Exempt Distance	Exempt Centers	Nonexempt Centers	Exen
14:19	AFP RBS++	DAS	14:17	19:00			ZSE ZAB ZLC ZFW ZLA ZAU ZMP ZDV ZKC ZME ZID ZMA ZHU ZIX ZOB ZBW ZTL ZNY ZDC ZOA	

Left sidebar links:

- Performance
- Flight Status Page
- Cancels That Flew
- Compliance
- CTD Before PGTD
- Pop-Ups
- Time Out Delay
- Duplicate Flights
- Unassigned Slots
- Events
- Text Version
- Lookup Flight
- Back to main menu
- Help

Figure 19: Events Report

For distance based GDPs several new parameters appear. An example Events report for a Boston distance based GDP appears below in Figure 20. Definitions are provided in Table 2.

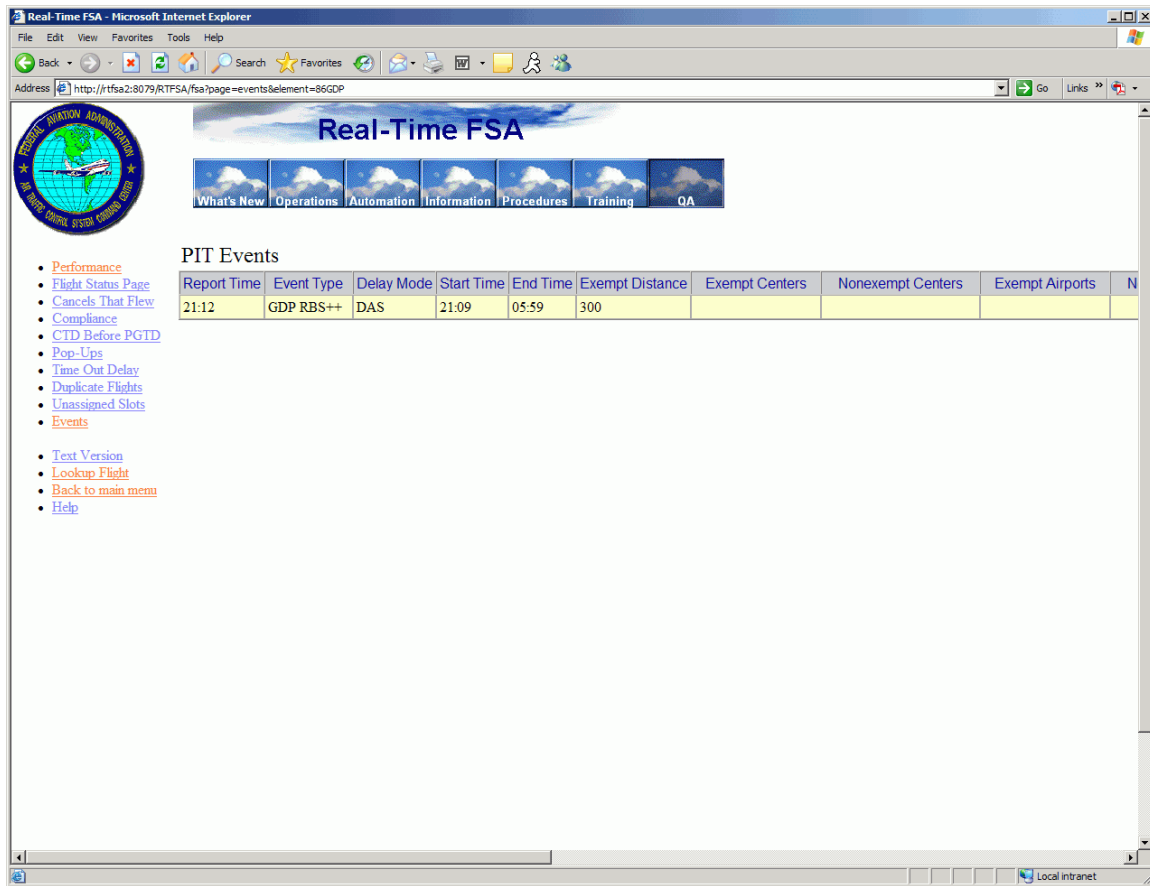


Figure 20: Exempt By Distance

Table 2: Distance Based GDP Parameters

Term	Definition
Distance	The distance specified in the GDP setup panel in nautical miles.
Exempt Centers	Shows any centers that fall within the distance specified, that are exempted from departure delay.
Non Exempt Centers	Shows the centers that fall outside of the distance, but are subject to departure delay.
Exempt Airports	Displays the airports that fall within the distance, but are exempted from departure delay.
Non Exempt Airports	Shows the airports that are subject to departure delay, that fall outside of the distance specified.
Non Exempt If Distance	This parameter has been added to allow special handling of Canadian airports during Distance based GDPs. Any Canadian airports listed will

be included if they fall within the distance specified. The flights departing from these airports will not be exempted from departure delay.

Flight Lookup

FSA's Flight Lookup feature allows you to query the FSA database for flight information. To access the query capabilities select the "Lookup Flight" link from any of the FSA reports. The query interface is shown below.

The screenshot shows a web browser window titled "Real-Time FSA - Microsoft Internet Explorer". The address bar displays "http://rtfsa2:8079/RTFSA/fsa?page=flightQuery". The page features a header with the "Real-Time FSA" logo and a navigation menu with links: "What's New", "Operations", "Automation", "Information", "Procedures", "Training", and "QA". On the left, there is a circular logo for the "FEDERAL AVIATION ADMINISTRATION" and a list of links: "Back to Main Menu" and "Help". The main content area is titled "Lookup Flight History" and contains a form with the following fields: "ACID", "ORIG", "DEST", and "Get past day Format MM/DD/YYYY" (with a checkbox). A "Submit Search Terms" button is located below the form. The status bar at the bottom indicates "Local intranet".

Figure 21: Flight Lookup

To view the flight history for a particular flight, enter the flight's call sign in the ACID field. At a minimum, the ACID field must contain a value. The remaining flight fields are optional. Once the search criteria has been entered, click **Submit Search Terms**.

A multiple flight query may be generated by using an asterisk after the three-letter ID. For example, to query for all ComAir flights enter the carrier's 3-letter abbreviation and an asterisk as shown in Figure 22. Then click **Submit Search Terms**.

Real-Time FSA - Microsoft Internet Explorer


File Edit View Favorites Tools Help

Back Forward Stop Search Favorites Print Mail RSS

Address <http://rtfsa2:8079/RTFSA/fsa?page=flightQuery> Go Links

Real-Time FSA

What's New Operations Automation Information Procedures Training QA



- [Back to Main Menu](#)
- [Help](#)

Lookup Flight History

ACID	COM*
ORIG	
DEST	
Get past day Format MM/DD/YYYY	<input type="checkbox"/>

Local intranet

Figure 22: Flight Lookup

FSA returns a list of flights as shown in Figure 23. For airline users, general aviation and military flights do not appear. Click on the flight's ACID to view the ADL records received for a particular flight.

Real-Time FSA

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Query Results

ACID	Origin	Dest	IGTD	Element
COM0	MEM	CVG	18/1215	Arr/Dep
COM0	MEM	CVG	18/1215	FCAGT1
COM10	CYYZ	CVG	18/2200	Arr/Dep
COM10	CYYZ	CVG	18/2200	FCAGT1
COM100	RSW	CVG	18/2120	Arr/Dep
COM100	RSW	CVG	18/2120	FCAGT1
COM1000	CVG	CYUL	18/1445	Arr/Dep
COM1000	MEM	CVG	18/1215	Arr/Dep
COM1000	CVG	CYUL	18/1445	FCAGT1
COM1000	MEM	CVG	18/1215	FCAGT1
COM1007	CVG	CYUL	18/1840	Arr/Dep
COM1007	CVG	CYUL	18/1840	FCAGT1
COM101	LEX	CVG	18/2204	Arr/Dep
COM101	LEX	CVG	18/2204	FCAGT1
COM1012	CVG	CYUL	19/0050	Arr/Dep
COM1014	LGA	CYUL	18/2300	Arr/Dep
COM102	RDU	CVG	18/1530	Arr/Dep
COM102	RDU	CVG	18/1530	FCAGT1
COM1021	EVV	CVG	18/1615	Arr/Dep
COM1021	EVV	CVG	18/1615	FCAGT1
COM1027	CVG	DCA	18/2250	Arr/Dep
COM1027	CVG	DCA	18/2250	FCAGT1
COM1027	CVG	DCA	18/2250	FEA052

Figure 23: Flight Lookup Results

The Flight History is color-coded to highlight changes in a flight's control times as well as data anomalies identified by FSA as shown in Figure 24 below. Flight records are sorted in ascending order by ADL time.

The flight history page also provides a direct link to the Volpe DataGate Flight History. Click on the "ETMS DataGate Flight History" link at the bottom left of the report (below ACID column) to access the Volpe Data Gate Flight History. Clicking on the Data Gate link opens the Volpe Data Gate Flight History in a separate window. RT-FSA opens the filtered or unfiltered version of the Volpe Data Gate Flight History depending on what type you are authorized to view.

Note: If the IGTD is missing for the flight used in the formation of the data gate link, a message that reads "ETMS data gate flight history link is unavailable due to a missing IGTD value" appears instead of the link.

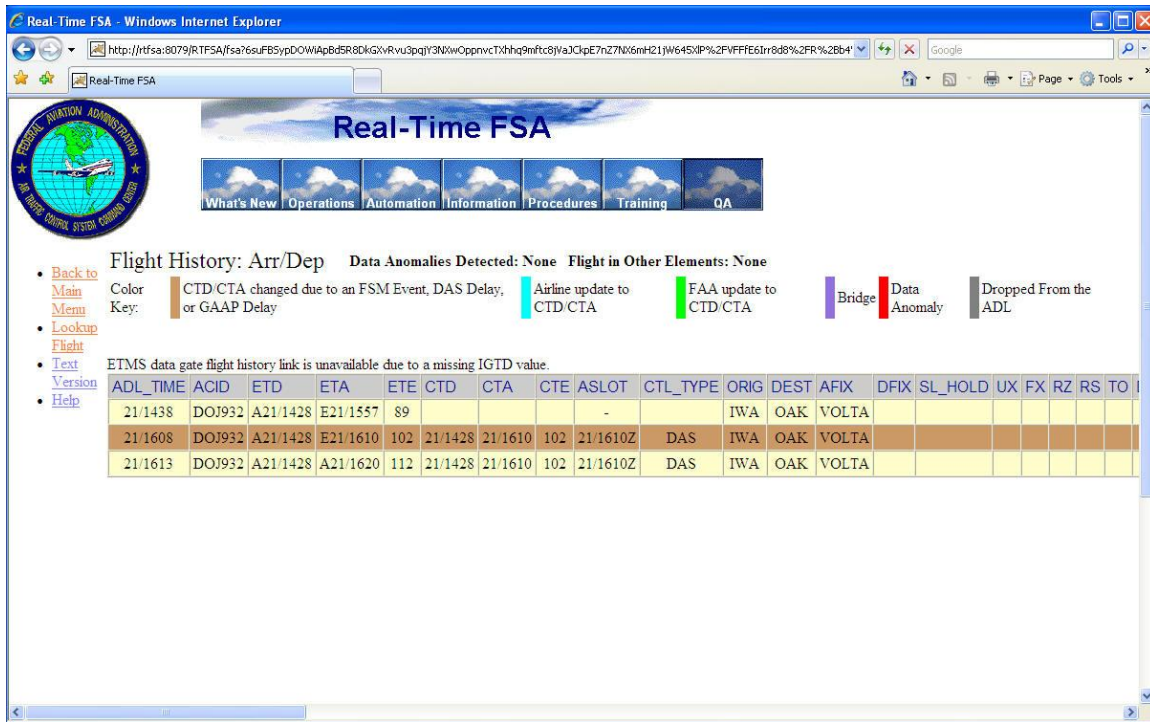


Figure 24: Flight History for a Flight Controlled by a DAS Program

Table 3 below describes the color scheme and what each color represents. To view a definition of each data field, position the mouse pointer over the column header and a description will pop-up.

Table 3: FSA Flight History Color Scheme

Color	Description	CTL_TYPE or CTD/CTA change
Red (individual cell)	A data anomaly has been detected. The data anomaly will be described at the top of the flight history.	
Brown	CTD/CTA changed due to an FSM event, GAAP Delay, or an FA delay applied by ETMS.	
Blue	CTD/CTA changed to an airline substitution or SCS	
Green	The FAA has changed the control times using the ETMS EDCT Update utility, the flight record containing the transition will be colored green, as is currently done to indicate FAA updates to CTD/CTA.	CTL_TYPE changes to ECR CTL_TYPE = UPD
Periwinkle	Bridged flight that falls within a fulfilled SCS Request	CTL_TYPE changes to BRG
Gray	Flight is no longer listed in the ADL. If this is the last line in the Flight History	

	Report, the flight was dropped due to ETMS issues. If there is a gray line followed by another line, then the flight temporarily dropped out of the ADL and returned in a later ADL. Note: This does not apply to flights that drop out in the first ADL of each hour due to the ADL time roll over.	
--	--	--

The flight history for a flight on a prior day may also be viewed by FAA users. To do so, select the "Get past day" checkbox and enter the date of interest in the format shown in Figure 25. For prior day lookups, the destination must also be entered.

Note: Airline users do not have access to historical flight lookups.

Real-Time FSA - Microsoft Internet Explorer

File Edit View Favorites Tools Help

Address <http://rtfsa2:8079/RTFSA/fsa?page=flightQuery> Go Links

Real-Time FSA

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Lookup Flight History

• [Back to Main Menu](#)
• [Help](#)

ACID	COM*
ORIG	
DEST	DEN
Get past day Format MM/DD/YYYY	<input checked="" type="checkbox"/> 04/17/2006

Submit Search Terms

Done Local intranet

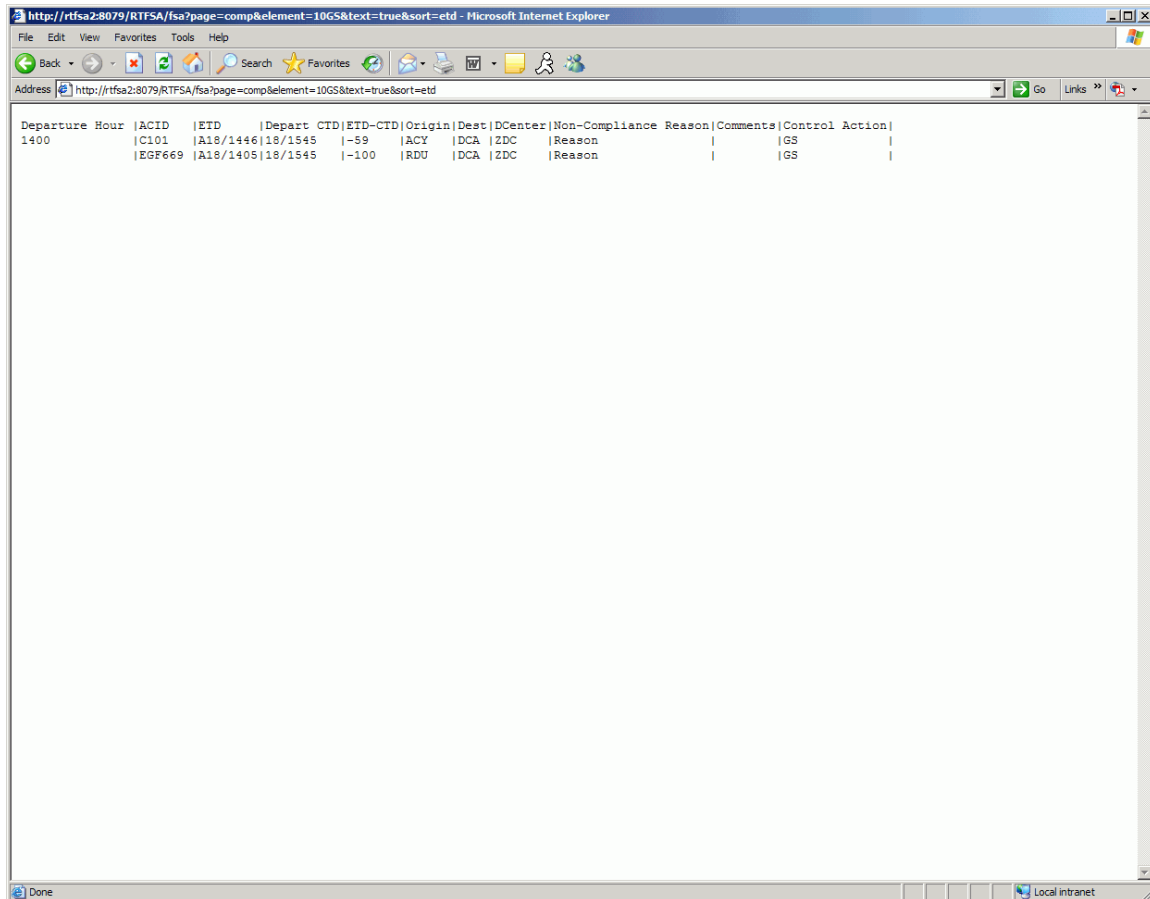
Figure 25: Flight Lookup

How To Copy, Save, and Print an FSA Report

To copy, save, or print a report it is generally easiest to work with a text version of the report.

Creating a Text Version of a report

To generate a text version, select the **Text Version** link on the left hand side menu. A text version of the report appears. A text version of the compliance report is shown in Figure 26 below.



Departure Hour	ACID	ETD	Depart CTD	ETD-CTD	Origin	Dest	DCenter	Non-Compliance Reason	Comments	Control	Action
1400	C101	A18/1446	18/1545	-59	ACY	DCA	ZDC	Reason		GS	
	EGF669	A18/1405	18/1545	-100	RDU	DCA	ZDC	Reason		GS	

Figure 26: Text Version of Compliance Report

To Copy and Paste the text report

From the Netscape Edit menu select **Select All** or alternatively use the shortcut keys CTL-A. To highlight a portion of the report, left click and drag to highlight the section you want to copy.

Right click the selection.

1. Select **Edit>Copy**.
2. Paste the copied text into a log or any other document.

To Save the text report:

1. From the browser, select **File > Save As**.
2. Enter a file name.
3. Select the location where you want to save the file.
4. For the **Save As Type**, select "Text File (*.txt)".
5. Click **Save**.

To Print the text report:

1. From the browser, select **File > Print**.
2. Select the printer.
3. Click **OK**.

Note: If you try to print a flight history Netscape will only print a single page width. To print all columns of the flight history you will need to save it as a text file and print from another application such as Notepad, Word, or Excel.

Appendix A: Questions and Answers

Why does the number of slots not equal the requested Program Rate?

This number of slots may not equal the program rate for several reasons:

- **Non Compliant Flights:** Flights which have already arrived will not be included in a revision, even if the slot time assigned to the flight falls within the revision time period. Furthermore, FSM does not look to see if slot times that fall within the revision time period were previously assigned to a flight that is not included in the revision. Therefore it is possible that a slot time may be associated with multiple flights. The end result is that the number of slots for a particular hour can exceed the program rate for an hour. To illustrate, consider a flight with a slot time of 2130 with a 60-minute en-route time. The flight was assigned a CTD of 2030 but departed an hour early at 1930 and arrived at 2030. A revision is run at 2045 with a start time of 2045. Because the flight has already arrived it is not included in the revision and will keep the 2130 slot time assigned to it. Assuming the program rate was 30 RBS++ creates 30 slots for the 2100 hour and creates a new 2130 slot, which is assigned to another flight. Now two flights have a 2130 slot time. Even though FSM allocated 30 slots in the revision, 31 slots now exist for the 2100 hour.
- **EDCT Updates:** An EDCT update changes the flight's slot time; therefore if the slot is moved to a different hour the number of slots will no longer equal the requested program rate.
- **Ground Stops:** Issuance of an FSM ground stop assigns all flights a CTD equal to the ground stop end time + 1 minute. The affected flights slot times will also be updated to the new CTD + ETE. This may dramatically redistribute slots.
- **Schedule Composition:** Occasionally, FSM will not allocate as many slots as requested if it cannot assign any flights to an available slot due to the schedule composition. This should very rarely occur - typically this only happens when the demand does not exceed the program rate by very much.

- **Flights Are Dropped:** Occasionally, flights get dropped from the ADL due to processing errors. The number of slots will be reduced by one for each controlled flight that has been dropped.

For example, the 1500 hour of the OAK program on 09/22/2010 has a program rate of 30, but the number of slots is only 2. See Figure 27 below.

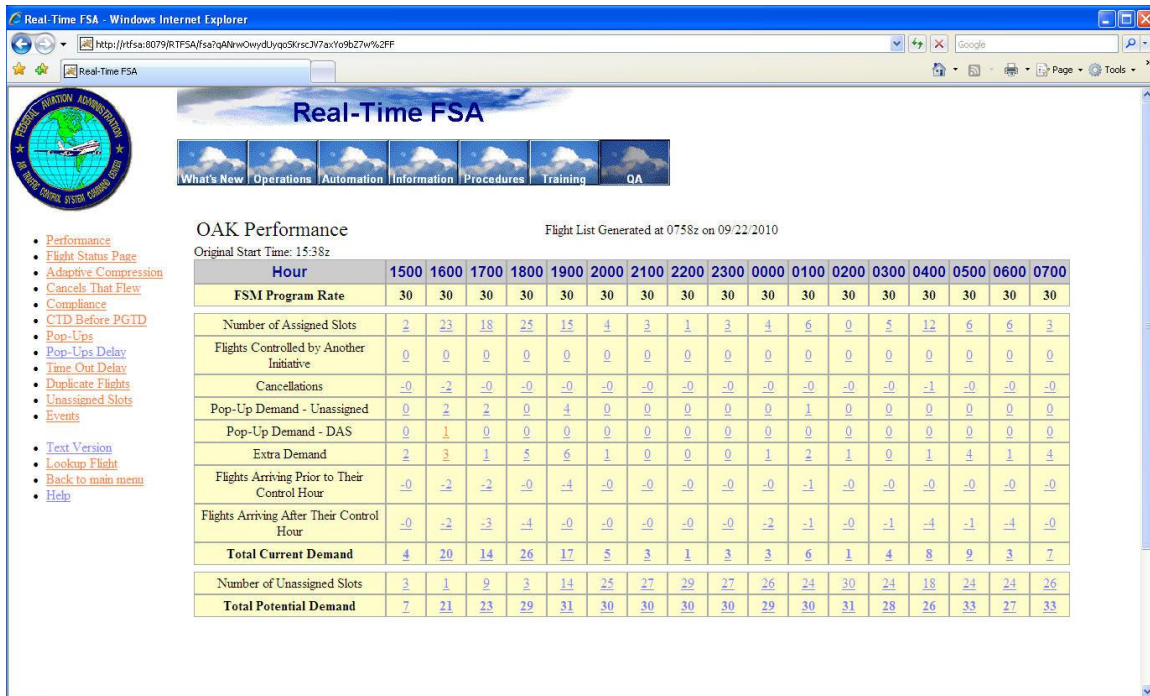


Figure 27: Slots not matching Program Rate

I see a flight listed as extra demand that is arriving in the correct hour. Why is this flight being counted as extra demand?

The only time you will see a flight, which is arriving in the correct hour, listed as extra demand is if its slot ID has a z suffix. The z suffix indicates that the slot was not created by FSM when the program (or latest revision) was run and therefore it is considered to be extra demand. This is an artifact of how FSM treats unscheduled flights that do not have a slot or FA delay in a stand-alone compression. During compression FSM will create additional slots for these flights. The slots that get created as a result of the compression process are given a slot ID with a Z suffix.

Appendix B: Real Time FSA Data Anomaly Checks

Real-Time FSA currently makes the data checks listed below. If any of the situations described below occur for a flight the flight will be flagged as having a data anomaly.

- $ETD < CTD$ with when ETD prefix =C. This appears to be happening some when airlines send in Ltimes or Ptimes before their control times. If Ltimes or Ptimes are before the CTD/CTA then ETD/ETA should not be remodeled to reflect the airline information.
- $Current\ ETA - Prior\ ETA > 20\ hours$ and/or (b) $max(ETA) - min(ETA) > 20\ hours$. This is a comparison across records to see if the ETA gets bumped up by a large amount. This usually means there was a data processing error (i.e. mismatch or date logic error.)
- $ETE \leq 10\ minutes$ where $ETE = current\ ETA - current\ ETD$.
- $(CTA - CTD) > 20\ hours$. This check was added to capture the following scenario: FSM moves CTA before CTD then ETMS bumps up CTA by a day because ETMS logic assumes CTA must be greater than CTD.
- The value of SGTD or SGTA changes. This could indicate a mismatch of flight records in ETMS.
- ETD changes after the ARTD has been received.
- $Final\ ETD \neq ARTD$.
- ARTD disappears.